

IN THE CLAIMS

Please cancel claims 1-14, all of the claims in the subject U.S. patent application, as filed, as set forth in the verified translation of PCT/DE2003/002146. Please also cancel claims 1-12 filed under Article 34 on December 15, 2004. Please add new claims 15-36 as follows.

Claims 1-14 (Cancelled)

15. (New) A method for analyzing color deviation of images including:
 - providing an image sensor;
 - using said image sensor for generating image sensor signals of an image;
 - providing a separate image sensor signal for each of first, second and third color channels;
 - linking said first color channel image sensor signal with said second color channel image sensor signal using a first calculation specification;
 - generating a first output signal of a first compensation color channel using said first and second linked color channel image sensor signals;
 - linking said third color channel image sensor signal with said first and second color channel image sensor signals using a second calculation specification;
 - generating a second output signal of a second compensation color channel using said linked third color channel image sensor signal and said first and second color channel image signals;
 - forming said first compensation color channel corresponding to a red/green receptive field of a human eye;

forming said second compensation color channel corresponding to a blue/yellow receptive field of a human eye;

selecting said first calculation specification for forming a weighted difference between said second color channel image sensor signal and said first color channel image sensor signal;

selecting said second calculation specification for forming a weighted difference between a combination of said first color channel image sensor signal and said second color channel image sensor signal, and said third color channel image sensor signal; and

classifying said first and said second output signals of said first and second compensation color channels.

16. (New) A method for analyzing color deviation of images including:

providing an image sensor;
using said image sensor for generating image sensor signals of an image;
providing a separate image sensor signal for each of first, second and third color channels;

linking said first color channel image sensor signal with said second color channel image sensor signal using a first calculation specification;

generating a first output signal of a first compensation color channel using said first and second linked color channel image sensor signals;

linking said third color channel image sensor signal with said first and second color channel image sensor signals using a second calculation specification;

generating a second output signal of a second compensation color

channel using said linked third color channel image sensor signal and said first and second color channel image signals;

forming said first compensation color channel corresponding to a red/green receptive field of a human eye;

forming said second compensation color channel corresponding to a blue/yellow receptive field of a human eye;

selecting said first calculation specification for forming a weighted difference between said second color channel image sensor signal and said first color channel image sensor signal;

selecting said second calculation specification providing a linkage of a minimum one of the first color channel image sensor signal and the second color channel image sensor signal, with said third color channel image sensor signal; and

classifying said first and said second output signals of said first and second compensation color channels.

17. (New) The method of claim 15 further including selecting said first, second, and third color channels corresponding to the basic colors of an RGB model wherein R is red, G is green and B is blue.

18. (New) The method of claim 16 further including selecting said first, second, and third color channels corresponding to the basic colors of an RGB model wherein R is red, G is green and B is blue.

19. (New) The method of claim 15 further including providing each of said first, second and third color channels with adaptable spectral sensitivity.

20. (New) The method of claim 16 further including providing each of said first,

second and third color channels with adaptable spectral sensitivity.

21. (New) The method of claim 15 further including providing at least one of said first and second calculation specification as a non-linear transformation.

22. (New) The method of claim 16 further including providing at least one of said first and second calculation specification as a non-linear transformation.

23. (New) The method of claim 15 further including weighting each of said first, second and third color channel image sensor signals with a coefficient.

24. (New) The method of claim 16 further including weighting each of said first, second and third color channel image sensor signals with a coefficient.

25. (New) The method of claim 15 further including providing a low pass filter in at least one of said first and second compensation color channels.

26. (New) The method of claim 16 further including providing a low pass filter in at least one of said first and second compensation color channels.

27. (New) The method of claim 15 further including providing a learning mode and an inspection mode, forming reference data values of at least one reference image using said first and second compensation color channels; storing said reference data values in a reference data memory; forming inspection images as inspection output signals using said first and second compensation color channels; and comparing said inspection output signals with said reference data values in said reference data memory pixel by pixel.

28. (New) The method of claim 16 further including providing a learning mode and an inspection mode, forming reference data values of at least one reference image using said first and second compensation color channels; storing said reference data

values in a reference data memory; forming inspection images as inspection output signals using said first and second compensation color channels; and comparing said inspection output signals with said reference data values in said reference data memory pixel by pixel.

29. (New) The method of claim 27 further including using a classification system for comparing said inspection output signals with said reference data values.

30. (New) The method of claim 28 further including using a classification system for comparing said inspection output signals with said reference data values.

31. (New) The method of claim 29 including selecting said classification system from linear and non/linear classification systems including threshold value classifiers, Euclidian distance classifiers, Bayes classifiers, fuzzy classifiers and artificial neuronic networks.

32. (New) The method of claim 30 including selecting said classification system from linear and non/linear classification systems including threshold value classifiers, Euclidian distance classifiers, Bayes classifiers, fuzzy classifiers and artificial neuronic classifiers.

33. (New) The method of claim 27 further including providing said reference data values for a plurality of said reference images in said reference data memory and using said reference data values for delivering a tolerance window for said reference data values.

34. (New) The method of claim 28 further including providing said reference data values for a plurality of said reference images in said reference data memory and using said reference data values for delivering a tolerance window for said reference data values.

35. (New) The method of claim 15 further including selecting said images as print images.

36. (New) The method of claim 16 further including selecting said images as print images.